

of equal to and greater than 10 and equal to and less than 90, and tin in the weight percent range of equal to and less than 90 and equal to and greater than 10, and the film of the oxide of an alloy of zinc and tin of the first dielectric layer is defined as a first film of the oxide of an alloy of zinc and tin, and

5aB 1/1  
CR  
cont.

10% [a second dielectric film] deposited over the first dielectric film, the second dielectric film comprising at least one film where the film is a zinc oxide, tin oxide film wherein the zinc oxide, tin oxide film has tin in the weight percent range of greater than 0 and less than 10 and the majority of the balance zinc [or] a film of an oxide of an alloy of zinc and tin having zinc in the weight percent range of equal to and greater than 10 and equal to and less than 90 and tin in the weight percent range of equal to and less than 90 and equal to and greater than 10 and wherein when the dielectric layer has a first film of an oxide of an alloy of zinc and tin and this additional film of an oxide of an alloy of zinc and tin is the second such film, the composition of the first such film is at least about 5 weight percent different than the composition of the second such film, and an infrared reflective layer deposited on the first dielectric layer.

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CR 3

6. (Twice amended) The coated article of claim 4 wherein the first dielectric film is the first film of an oxide of an alloy of zinc and tin, the infrared reflective layer is a silver film and the electrical enhancing film is the second film of an oxide of an alloy of zinc and tin.

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CR 1

8. (Twice amended) The coated article of claim 7 wherein the second dielectric layer is a film of an oxide of an alloy of zinc and tin having 10-90 weight percent zinc and 90-10 weight percent tin.

Q1  
C4  
10. (Twice amended) The coated article of claim 9 wherein at least one of the second and third dielectric layers includes a film of an oxide of an alloy of zinc and tin having 10-90 weight percent zinc and 90-10 weight percent tin.

11. (Twice amended) The coated article of claim 4 wherein the infrared reflective layer is a first infrared reflective layer and further including:

a first metal primer layer over the first reflective layer;

Q1  
C4  
a second dielectric layer over the first metal primer layer, the second dielectric layer comprising a first dielectric film and a film of an oxide of an alloy of zinc and tin defined as a first film of an oxide of an alloy of zinc and tin, the first film of an oxide of an alloy of zinc and tin having zinc in the weight percent range of equal to and greater than 10 and equal to and less than 90 and tin in the weight percent range of equal to and greater than 10 and equal to and less than 90, the first dielectric film of the second dielectric layer deposited over the first metal primer layer;

a second infrared reflective layer deposited over the second dielectric layer;

a second metal primer layer deposited over the second infrared reflective layer;

a third dielectric layer deposited over the second primer layer, and

optionally a protective layer over the third dielectric layer.

Q5  
C4  
12. (Thrice amended) The coated article of claim 40 wherein the first dielectric film of the second dielectric layer is a zinc oxide film or a zinc oxide, tin oxide film or a film of an oxide of an alloy of zinc and tin defined as a second film of an oxide of an alloy of zinc and tin, the second film of an oxide of an

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alloy of zinc and tin of the second dielectric layer having a composition different than the composition of the first film of an oxide of an alloy of zinc and tin of the second dielectric layer.

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13. (Twice amended) The coated article of claim 12 wherein the second film of an oxide of an alloy of zinc and tin of the second dielectric layer has zinc in the weight percent range of equal to and greater than 60 and equal to and less than 90 and tin in the weight percent of equal to and greater than 10 and equal to and less than 40, and the third dielectric layer is a film of an oxide of an alloy of zinc and tin.

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14. (Twice amended) The coated article of claim 4 wherein the infrared reflective layer is a first infrared reflective layer and further including:

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a first metal primer layer over the first reflective layer;

a second dielectric layer over the first metal primer film;

a second infrared reflective layer over the second dielectric layer;

a second metal primer layer over the second infrared reflecting metal layer;

a third dielectric layer over the second metal primer layer, the third dielectric layer comprising a first dielectric film and a film of an oxide of an alloy of zinc and tin defined as a first film of an oxide of an alloy of zinc and tin, the first film of an oxide of an alloy of zinc and tin having zinc in a weight percent with the range of equal to and greater than 10 and equal to and less than 90 and tin within the weight percent range of equal to and less than 90 and equal to and greater than 10, the third dielectric layer deposited over the second metal primer; and optionally a protective film overlying the third dielectric film.

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15. (twice amended) The article of claim 14 wherein the first dielectric film of the third dielectric layer is a zinc oxide film or a zinc oxide, tin oxide film or a film of an oxide of an alloy of zinc and tin defined as a second film of an oxide of an alloy of zinc and tin, the second film of an oxide of an alloy of zinc and tin of the first dielectric film of the third dielectric layer having a composition different than the composition of the first film of an oxide of an alloy of zinc and tin of the third dielectric layer.

16. (Amended) The article of claim 15 wherein the second film of an oxide of an alloy of zinc and tin of the third dielectric layer has zinc in the weight percent range of equal to and greater than 60 and equal to and less than 90 and tin in the weight percent range of equal to and greater than 10 and equal to and less than 40.

17. (Twice amended) The coated article of claim 4 wherein the infrared reflective layer is a first infrared reflective layer and further including:

a first metal primer layer over the first reflective layer;

a second dielectric layer over the first metal primer layer, the second dielectric layer comprising a first dielectric film and a film of an oxide of an alloy of zinc and tin defined as a first film of an oxide of an alloy of zinc and tin, the first film of an oxide of an alloy of zinc and tin having zinc in a weight percent within the range of equal to and greater than 10 and equal to and less than 90 and tin within the weight percent range of equal to and less than 90 and equal to and greater than 10, the second dielectric layer deposited over the first metal primer layer;

a second infrared reflective layer over the first film of an oxide of an alloy of zinc and tin of the second dielectric layer;

a second metal primer layer over the second infrared reflective layer;

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a third dielectric layer over the second metal primer layer, the third dielectric layer comprising a first dielectric film and a film of an oxide of an alloy of zinc and tin defined as a first film of an oxide of an alloy of zinc and tin, the first film of an oxide of an alloy of zinc and tin having zinc in a weight percent within the range of equal to and greater than 10 and equal to and less than 90 and tin within the weight percent range of equal to and less than 90 and equal to and greater than 10, the third dielectric layer deposited over the second metal primer layer; and optionally a protective film overlying the first film of an oxide of an alloy of zinc and tin of the dielectric layer.

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443  
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C/O

18. (thrice amended) The coated article of claim 17 wherein the first dielectric film of the second dielectric layer and the first dielectric film of the third dielectric layer each has a film which is a zinc oxide film or zinc oxide, tin oxide film or a second film of an oxide of an alloy of zinc and tin wherein the second film of an oxide of an alloy of zinc and tin of the first dielectric film of the first dielectric layer and the second film of an oxide of an alloy of zinc and tin of the first dielectric film of the third dielectric layer has a composition different than the composition of the first film of an oxide of an alloy of zinc and tin in the respective same second or third dielectric layer.

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19. (Twice amended) The coated article of claim 18 wherein the second film of an oxide of an alloy of zinc and tin of the first and second dielectric layers each include zinc in the weight percent range of equal to and greater than 60 and equal to and less than 90 and tin in the weight percent of equal to and greater than 10 and equal to and less than 40.

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443  
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C/O

20. (Twice amended) The coated article of claim 17 wherein the second dielectric layer further includes a third dielectric film over the first film of an oxide of an alloy of zinc and tin of the second dielectric layer.

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cont

21. (Twice amended) The coated article of claim 18 wherein the second dielectric layer further includes a third dielectric film over the first film of an oxide of an alloy of zinc and tin of the second dielectric layer wherein the third dielectric film of the second dielectric layer is a film selected from the group consisting of zinc oxide film, zinc oxide, tin oxide film and a film of an oxide of an alloy of zinc and tin defined as a third film of an oxide of an alloy of zinc and tin, the third film of an oxide of an alloy of zinc and tin has a composition different than the composition of the film of an oxide of an alloy of zinc and tin of the second dielectric film closest to the third film of an oxide of an alloy of zinc and tin.

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463  
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CH

22. (thrice amended) The coated article of claim 18 wherein the second dielectric film of the second dielectric layer and the second dielectric film of the third dielectric layer each has a film which is a zinc oxide film or a zinc oxide, tin oxide film or a film of an oxide of an alloy of zinc and tin defined as a second film of an oxide of an alloy of zinc and tin wherein the first and second film of an oxide of an alloy of zinc and tins in the same dielectric layer have different compositions.

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463  
D  
CH

23. (Twice amended) The coated article of claim 43 wherein the first and third dielectric films of the second dielectric layer and the first dielectric film of the third dielectric layer each include zinc in the weight percent range of equal to and greater than 60 and equal to and less than 90 and tin in the weight percent of equal to and greater than 10 and equal to and less than 40.

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24. (Twice amended) The coated article of claim 20 wherein the first dielectric film of the first dielectric layer is the first film of an oxide of an alloy of zinc and tin, the second film of an oxide of an alloy of zinc and tin of the first dielectric

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43  
cont

layer is on the glass piece and has a thickness in the range of  $230 \pm 40$  Angstroms  $\text{\AA}$ ; the first film of an oxide of an alloy of zinc and tin of the first dielectric layer is on the second film of an oxide of an alloy of zinc and tin of the first dielectric layer and has a thickness in the range of  $80 \pm 40\text{\AA}$ ; the first infrared reflective metal layer is a first silver film deposited on the first film of an oxide of an alloy of zinc and tin of the first dielectric layer and has a thickness in the range of  $110 \pm 30\text{\AA}$ , the metal primer layer is a titanium film deposited on the first silver layer and has a thickness in the range of  $17-26\text{\AA}$ ; the first dielectric film of the second dielectric layer is deposited on the titanium film and has a thickness in the range of  $80 \pm 40\text{\AA}$ ; the first film of an oxide of an alloy of zinc and tin of the second dielectric layer is deposited on the first dielectric film of the second dielectric layer and has a thickness in the range of  $740 \pm 40\text{\AA}$ ; the second infrared reflective metal layer is a second silver film deposited on the second dielectric film of the second dielectric layer and has a thickness in the range of  $110 \pm 38\text{\AA}$ ; the second primer film is a titanium film deposited on the second silver layer and having a thickness in the range of  $18 - 31\text{\AA}$ ; the first dielectric film of the third dielectric layer is deposited on the second titanium film and has a thickness in the range of  $80 \pm 40\text{\AA}$ ; the first zinc stannate layer of the third dielectric layer is deposited on the first dielectric film of the third dielectric layer and has a thickness in the range of  $120 \pm 40\text{\AA}$ , and the protective layer is a titanium metal film deposited on the first zinc stannate layer of the third dielectric layer and has a thickness in the range of  $29 \pm 3\text{\AA}$ .

25. (thrice amended) A coated article comprising:  
a substrate;  
a first dielectric layer over the substrate;  
a first infrared reflective layer over the first dielectric layer;

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a first metal primer layer over the first infrared reflective layer;

a second dielectric layer over the first metal primer, the second dielectric layer having a first dielectric film comprising at least one film which is <sup>selected from the group consisting of</sup> zinc oxide, tin oxide film wherein the zinc oxide, tin oxide film has zinc in the weight <sup>or</sup>  $90 \geq \text{Zn} > 10$  percent range of equal to or greater than 90 and less than 100 and the majority of the balance tin <sup>and</sup> a first film of an oxide of an alloy of zinc and tin, <sup>this dielectric layer also includes</sup> and a second dielectric film ~~where the second dielectric film has~~ <sup>having</sup> a composition different than the first dielectric film of the second dielectric layer;

a second infrared reflective layer over the second dielectric layer;

a second primer layer over the second reflective layer;

a third dielectric layer over the second metal primer layer; and

optionally a protective layer overlying the third dielectric layer.

26. (Amended) The coated article of claim 25 wherein the first dielectric layer includes a film of an oxide of an alloy of zinc and tin, the second dielectric film of the second dielectric layer is a film of an oxide of an alloy of zinc and tin and the third dielectric layer includes a film of an oxide of an alloy of zinc and tin, each of the film of an oxide of an alloy of zinc and tins having zinc in the weight percent range of 10-90 and tin in the weight percent range of 90-10.

27. (Amended) The coated article of claim 26 wherein the first dielectric film of the second dielectric layer is the first film of an oxide of an alloy of zinc and tin having zinc in the weight percent range of equal to and greater than 90 and equal to and less than 60 and tin in the weight percent range of equal to and greater than 10 and equal to and less than 40.

$\text{Zn} \geq 90$   
 $\text{Zn} \leq 60$   
 $\text{Sn} \geq 10$   
 $\text{Sn} \leq 40$



28. (thrice amended) A coated article comprising:  
a substrate;  
a first dielectric layer over the substrate;  
a first infrared reflective layer over the first dielectric layer;  
a first metal primer layer over the first infrared reflective layer;  
a second dielectric layer over the first metal primer layer;  
a second infrared reflective layer over the second dielectric layer;  
a second metal primer layer over the second reflective metal layer;  
a third dielectric layer having a first dielectric film comprising at least one film <sup>selected from the group consisting of a</sup> which is zinc oxide film or zinc oxide, tin oxide film, wherein the zinc oxide, tin oxide film has either tin in the weight percent range of greater than 0 and less than 10 and the majority of the balance zinc or zinc in the weight percent range of equal to or greater than 90 and less than 100 and the majority of the balance tin <sup>the 30-40% tin includes</sup> and a first film of an oxide of an alloy of zinc and tin or a second dielectric film overlying the first dielectric film, the second dielectric film having a composition different from the first dielectric film; and  
optionally a protective film overlying the third dielectric layer.

29. (Amended) The coated article of claim 28 wherein the first and second dielectric layers are each a film of an oxide of an alloy of zinc and tin, and the second dielectric film of the third dielectric layer is a film of an oxide of an alloy of zinc and tin and each of the film of an oxide of an alloy of zinc and tins has zinc in the weight percent range of 10-90 and tin in the weight percent range of 90-10.

5m3  
06  
C196  
cont

30. (Amended) The coated article of claim 29 wherein the first dielectric film of the second dielectric layer has zinc in the weight percent range of equal to and greater than 90 and equal to and less than 60 and tin in the weight percent range of equal to and greater than 10 and equal to and less than 40.

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31. (twice amended) A coated article comprising:  
a substrate;  
a first dielectric layer over the substrate;  
a first infrared reflective layer over the first dielectric layer;  
a first primer layer over the first reflective metal layer;

C18  
4m3  
06  
cont

a second dielectric layer having a first dielectric film comprising at least one film which is zinc oxide, tin oxide film or a first film of an oxide of an alloy of zinc and tin, and a second dielectric film overlying the first dielectric film having a composition different than the first dielectric film of the second dielectric layer;

a second infrared reflective layer over the second dielectric layer;

a second primer layer over the second reflective layer;

a third dielectric layer over the second metal primer layer, the third dielectric layer having a first dielectric film comprising at least one film which is a zinc oxide, tin oxide film or a first film of an oxide of an alloy of zinc and tin, and a second dielectric film, <sup>which further includes</sup> ~~the second dielectric film of the third dielectric layer~~ <sup>having</sup> a composition different than the composition of the first dielectric film of the third dielectric layer, wherein the zinc oxide, tin oxide film of the first dielectric film of the second dielectric layer and of the first dielectric film of the third dielectric layer has tin in the weight percent range of greater than 0 and less than 10  <sup>$0 \leq Sn \leq 10$  and  $90 \leq Zn \leq 100$</sup>  ~~and the majority of the balance zinc,~~ zinc in the weight percent range of less than 100 and equal to and greater than 90 ~~and the majority of the balance tin and mixtures thereof;~~ and

*C18*  
*cont*  
optionally a protective film overlying the third dielectric layer.

*C19*  
32. (Amended) The coated article of claim 31 wherein the first dielectric layer, <sup>one</sup> the second dielectric film <sup>of</sup> the second and third dielectric layers are each a film of an oxide of an alloy of zinc and tin having <sup>10-90wt% Zn, Sn 90-10wt%</sup> zinc in the weight percent range of 10-90 and tin in the weight percent range of 90-10.

*243*  
*D1*  
33. (Amended) The coated article of claim 32 wherein the first dielectric film of the second and third dielectric layers are each a film of an oxide of an alloy of zinc and tin having zinc in the weight percent range of equal to and greater than 90 and equal to and less than 60 and tin in the weight percent range of equal to and greater than 10 and equal to and less than 40. *Zn > 90*  
*Sn > 10*  
*Zn < 60*  
*Sn > 40*

*C20*  
38. (Amended) The coated article of claim 5 wherein the first dielectric film of the first dielectric layer is the first film of an oxide of an alloy of zinc and tin.

39. (Amended) The coated article of claim 8 wherein the first dielectric film of the first dielectric layer is the first film of an oxide of an alloy of zinc and tin.

40. (Amended) The coated article of claim 11 wherein the first dielectric film of the first dielectric layer is the first film of an oxide of an alloy of zinc and tin.

41. (Amended) The coated article of claim 15 wherein the first dielectric film of the first dielectric layer is the first film of an oxide of an alloy of zinc and tin.

42. (Amended) The coated article of claim 17 wherein the first dielectric film of the first dielectric layer is the first film of an oxide of an alloy of zinc and tin.

*C201*  
*cont.*  
43. (Amended) The coated article of claim 22 wherein the first dielectric film of the first dielectric layer is the first film of an oxide of an alloy of zinc and tin.

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*C21*  
45. (Amended) The coated article of claim 4 wherein the composition of the second film of an oxide of an alloy of zinc and tin is zinc in the range of 60 to 90 weight percent and tin in the range of 10 to 40 weight percent.

46. (Amended) The coated article of claim 7 wherein the composition of the second film of an oxide of an alloy of zinc and tin is zinc in the range of 60 to 90 weight percent and tin in the range of 10 to 40 weight percent.

47. (Amended) The coated article of claim 9 wherein the composition of the second film of an oxide of an alloy of zinc and tin is zinc in the range of 60 to 90 weight percent and tin in the range of 10 to 40 weight percent.

48. (Amended) The coated article of claim 25 wherein the composition of the second dielectric film is a film of an oxide of an alloy of zinc and tin is zinc in the range of 60 to 90 weight percent and tin in the range of 10 to 40 weight percent.

49. (Amended) The coated article of claim 28 wherein the composition of the second film of an oxide of an alloy of zinc and tin is zinc in the range of 60 to 90 weight percent and tin in the range of 10 to 40 weight percent.

50. (Amended) The coated article of claim 31 wherein the composition of the second dielectric film is an oxide of an alloy of zinc and tin is zinc in the range of 60 to 90 weight percent and tin in the range of 10 to 40 weight percent.

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